

REMARKS

Applicant has received and carefully reviewed the Decision on Appeal of the Board, in which claims 13 and 15-26 are pending, claims 13, 15-17 and 21-26 have been rejected, and claims 18-20 have been allowed. Favorable consideration of the following remarks is respectfully requested.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 13, 15-17 and 21-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Pfenninger (U.S. Patent No. 5,306,247) in view of Allman et al. (U.S. Patent No. 6,346,093. Applicant respectfully traverses the rejection.

It is argued that “Pfenninger discloses the claimed invention except for the longitudinal angled slit configured to permit guidewire access through the guidewire port while maintaining a substantially fluid tight in use when no guide wire is provided,” that “Allman teaches that it is known to use a longitudinal angled slit configured to permit guidewire access through the guidewire port while maintaining a substantially fluid tight in use when no guide wire is provided,” and “that it would be obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Pfenninger with a longitudinal angled slit as taught by Allman, since such a modification would provide the system with a longitudinal slit for providing and allowing a guidewire to be radially slid into or out of the sheath assembly.” Final Office Action at pages 5-6. Applicant respectfully disagrees with each of these statements.

First, Pfenninger does not disclose the claimed invention except for the longitudinal slit.” Claim 13 recites “a single lumen microcatheter.” Pfenninger is directed to a multi-lumen catheter and discloses no single lumen configuration. The abstract teaches “a balloon catheter with a shaft having a balloon located proximate a distal end thereof, with the shaft having a lumen through which a balloon is supplied.”

Second, Allman et al. do not disclose a longitudinal angled slit as claimed. Claim 13 recites “the polymer sheath including a passage comprising an angled slit extending radially through the polymer sheath at an angle such that the slit has a depth that is greater than a thickness of the polymer sheath.” Slit 118 of Allman et al. in Figures 4 and 4B and sheath overlap 136 of Figure 4C are cited as disclosing this recited slit. However, slit 118 is not angled “such that the slit has a depth that is greater than a thickness of the polymer sheath. Slit 118 is

shown as extending directly through sheath 114 and, as such, has a depth equal to rather than greater than the thickness of the sheath. Sheath overlap 136 is not a slit. It is not so described in Allman et al. (see column 8, lines 24-30) and would not be so understood by those of skill in the art. Overlap 136 is not a long, narrow cut or opening *through* the sheath; instead, it uses the overlapping edges of the sheath to create an opening.

Finally, there is no motivation to modify Pfenninger in view of Allman et al. to produce the claimed invention. Pfenninger already allows a guidewire to be radially slid into or out of the catheter. Moreover, because the catheter of Pfenninger is a two-lumen catheter, there is no apparent advantage gained by making the opening into the guidewire lumen substantially fluid tight when not in use.

With respect to the overlap 136 of Figure 4C of Allman et al. discussed above, modifying Pfenninger in view of this embodiment of Allman et al. would render Pfenninger unfit for its primary function. The "sheath" 27 of Pfenninger is not merely the outer layer of the side opening 9; it is also the outer tube of the catheter and extends proximally to the hub to form the inflation lumen 6 of the balloon. Such an overlapping configuration would not hold pressure to allow the balloon to inflate, which is a primary function of the catheter of Pfenninger. Consequently, there is no motivation to make the proposed combination.

For at least these reasons, Applicant submits that claim 13 is allowable over the cited art. As claims 15-17 and 21-26 depend from claim 13 and contain additional elements, Applicant submits that these claims are likewise in condition for allowance.

Further, claim 23 recites "wherein the guidewire port has a first wall and a second wall, wherein the first wall and the second wall extend parallel to the longitudinal axis of the elongate shaft and wherein the guidewire port length also extends parallel to the longitudinal axis of the elongate shaft." The figure on page 5 of the Final Office Action shows first wall and second wall of Pfenninger. These walls are curved walls and consequently cannot extend parallel to each other or to anything. Parallelism requires straight walls. Applicant consequently submits that claim 23 is allowable for this additional reason as well as those discussed above.

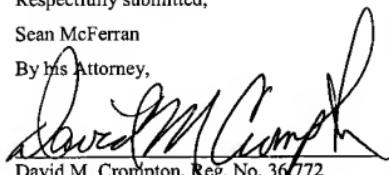
Conclusion

Reconsideration and further examination of the rejections are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By his Attorney,



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